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September 8, 1999

Asst. Commissioner of Patents  
Washington, D.C. 20231

**PATENT APPLICATION TRANSMITTAL LETTER**

Inventor(s): Heizo KITAJIMA  
CLIENT CARD MAIL SYSTEM  
Attorney Docket No.: 33701M002

Sir:

Transmitted herewith for filing are the following:

New patent application including 24 pages of text, 17 sheets of drawings, signed Declaration, signed Assignment and Assignment transmittal, patent application transmittal, signed Verified Statement/Declaration Claiming Small Entity Status, and a check for \$420.00.

Counsel's check for the fee which has been calculated as shown below.

Basic Fee	\$380.00
Assignment Fee	<u>\$ 40.00</u>
<b>TOTAL:</b>	<b>\$420.00</b>

If any additional fees associated with this communication are required, please notify the undersigned attorney by telephone and charge the fees to Deposit Account 02-4300.

Beveridge Degrand's et al



02-4300

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September 8, 1999

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This includes, for example, any additional filing fees required under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

By 

Michael A. Makuch

Reg. No. 32,263

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SGR/BDWY Form SED-2  
Small Entity  
Small Business Concern

Applicant or Patentee (Inventors):  
Serial No. or Patent No. (if known):  
Filed or Issued (if known):  
For (invention title):

### SMALL ENTITY FORM - SMALL BUSINESS CONCERN

(VERIFIED STATEMENT/DECLARATION CLAIMING SMALL ENTITY STATUS, 37 CFR 1.9(f) and 1.27(b))

I hereby declare that I am

(check one) ☒ the owner of the small business concern identified below:  
☐ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN: Kabushiki Kaisha Okura  
ADDRESS OF CONCERN: 1734-30, Oyama, Koga-shi, Ibaragi-ken, Japan

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention described in the above-identified application or patent.

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below and no rights to the invention are held by any person, other than the inventor, who could not qualify as an independent inventor under 37 CFR 1.9(c) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

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\* NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing: Heizo KITAJIMA  
Title of Person Signing: President  
Address of Person Signing: 1734-30, Oyama, Koga-shi, Ibaragi-ken, Japan

SIGNATURE Heizo Kitajima DATE August 31, 1999  
Heizo KITAJIMA

**CLIENT CARD MAIL SYSTEM****BACKGROUND OF THE INVENTION**

5       The present invention relates to a client card mail system making use of a method for storage and retrieval of fractionalized data, by which clients' taste and living custom are grasped so as to enable propaganda activity.

10       In the conventional client card mail system, cards are issued on the basis of individual information such as addresses, telephone numbers and so on of clients, and when clients purchase the goods or receive services so that delivery and reception of money between sellers and clients occur, points according to an amount of money are added to present services, present the novel goods or mail an addressed advertisement(DM).

15       However, for example, in the case where a selling agent which sells various goods sells the goods called D of the goods C handled by a department B of a company A, there is a client who takes either the goods C of a company E or the goods C of a company F depending on the client. Further, for example, depending on separate clients, there is a client who purchases only the goods called D of the goods C handled by a department B of a company A, and there is a client who does not purchase the sales goods of the department B.

20       As described above, there is a problem in that even if the selling agent advertises enclosing circulars of a special sale for the goods in which clients are not interested to clients having different demands, tastes, desires and the like, such an advertisement mailed is quite useless because the client who received the notice will not buy unnecessary goods.

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**SUMMARY OF THE INVENTION**

It is therefore an object of the present invention

to provide a client card mail system having a method for storage and retrieval of fractionalized data incorporated therein, by which clients' taste and living custom are grasped from the sales goods purchased by the clients  
 5 previously so as to enable useful propaganda activity of the goods.

According to the present invention, there is provided a client card mail system, comprising: means for  
 10 storing client information in which individual information of clients' code number, name, sex distinction, age, address and telephone number; means for storing information of the goods for sales company for the sales goods, departments, classes of the goods name,  
 15 goods codes, prime unit prices, and sales unit prices; means for storing information of the goods purchased by the clients; and means for retrieving clients' information of the clients who actually purchased the goods setting the conditions of periods and goods classes from the  
 20 information of the goods purchased; and means for outputting and printing the results retrieved, so as to enable useful propaganda activity of the sales goods.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

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FIG. 1 is a view showing main parts of a client card mail system according to the present invention;

FIG. 2 is a flow chart for storing the good purchase data of clients using a main computer 1 and a terminal  
 30 of the client card mail system according to the present invention;

FIG. 3 is an illustrative view of individual information of clients stored in the client card mail system according to the present invention;

35 FIG. 4 is an illustrative view of purchased data of clients stored in the client card mail system according to the present invention;

FIG. 5 is a flow chart showing data take-in and data retrieval in the client card mail system according to the present invention;

5     FIG. 6 is a view illustrating the result of retrieval of the goods to which the retrieving conditions are set in the client card mail system according to the present invention;

10    FIG. 7 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client card mail system menu screen;

15    FIG. 8 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a sales data take-in screen;

20    FIG. 9 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client information output menu screen;

25    FIG. 10 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client retrieval screen;

30    FIG. 11 is a table when the client card mail system according to the present invention is carried out to output the result of retrieval;

35    FIG. 12 shows an example wherein the client card mail system according to the present invention is carried out to output the result of retrieval to an addressed seal;

FIG. 13 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing an unworking client retrieval screen;

FIG. 14 is a table when the client card mail system according to the present invention is carried out to output the result of retrieval;

FIG. 15 is a display on the screen of the main computer

1 when the client card mail system according to the present invention is carried out, showing a master maintenance selection screen;

FIG. 16 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a district master maintenance selection screen;

FIG. 17 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a goods master maintenance screen; and

FIG. 18 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client master maintenance screen.

#### **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

The client card mail system according to the present invention will now be described in detail with reference to the accompanying drawings. FIG. 1 is a view showing main parts of a client card mail system according to the present invention; FIG. 2 is a flow chart for storing the good purchase data of clients using a main computer 1 and a terminal of the client card mail system according to the present invention; FIG. 3 is an illustrative view of individual information of clients stored in the client card mail system according to the present invention; and FIG. 4 is an illustrative view of purchased data of clients stored in the client card mail system according to the present invention.

The client card mail system according to the present invention is carried out making use of a computer comprising an input apparatus for client information provided with a main computer 1 and terminal devices 1a, 1b, 1c and 1d and a data storing apparatus 1e, and a card issuing machine 2 are combined, and a client card issuing

system, as shown in FIG. 1. As the client management apparatus and the client card issuing system, a conventional device, for example, a POS device may be used.

As shown in FIG. 1, the terminal devices 1a, 1b, 1c and 1d are a terminal machine having a scanner or the like and connected to a store processor or the like to perform a unit article information management, which is called a so-called POS terminal or merely POS (Point Of Sales) (sales point information management).

In the client management and the client card issuing system, information is registered in the terminal devices 1a, 1b, 1c and 1d at the store front on the basis of a registration sheet entered (filled up) by the client who desires an information registration for having a service of the store, or a sheet is sent to a card issuing central issuing agent or the like where information is registered in the main computer 1 by an operator or the like, or each client registers the client's own information in the terminal devices 1a, 1b, 1c and 1d at the store front or other terminals.

Concurrently with the registration, a number for client management is given to each client, and as shown in FIG. 3, data are stored in a registered member file along with client's individual information. Then, a number of each client, the registered individual information and the like are stored in a read and write memory medium, and the card is sent to each client for issuance.

Each client carries the card, and as shown in FIG. 2, when paying money for the goods purchased or the service presented, a salesman (saleswoman) or a client himself uses the card to read the card data in the terminal devices 1a, 1b, 1c and 1d (n1) and connect to a network (n2). Collation is made with individual information stored in the main computer 1 on the basis of individual information recorded in the card (n3), and reference of client is made to the terminal devices 1a, 1b, 1c and 1d.

In the terminal devices 1a, 1b, 1c and 1d, the price



for the purchased goods is entered in a register, or a bar code is read by a laser scanner or the like so that data of the purchased goods or data of the presented service are repeatedly read every goods in the main computer 1 (n4, n5, n6). The salesman receives the money (n7) and issues a receipt (n8). Concurrently with the issuance of the receipt, purchase information of a client is stored in a data storing device 1e (n9).

When the purchase information of a client is confirmed on the screen of the client card mail apparatus, as shown in FIGS. 3 and 4, clients are lined up in order of numbers given as shown in FIG. 3 on the computer screen, and for example, when one out of the client information is selected, the goods purchased data of the client selected is displayed as shown in FIG. 4, which is readily distinguished.

According to the present invention, as shown in FIG. 3, circulars or addressed advertisements are mailed, to many clients with clients' goods purchase data gathered in the main computer 1 applied with special conditions, or being telephoned for propaganda advertisement to promote the purchase of the goods.

The data take-in and the data retrieval will be described in detail hereinafter.

FIG. 5 is a flow chart showing data take-in and data retrieval in the client card mail system according to the present invention. In the client card mail system according to the present invention, the retrieval by classes can be made. For example, referring to FIG. 4, in the case where circulars for special sales of the goods, beer xxx-ooo of liquor sold by company S, are sent to specific clients, the circulars may be sent to only the clients who have purchased the goods previously on the basis of sales information.

Further, in the case where circulars for specific sales of the entire beer are desired to be sent, the circulars for specific sales of beer are not sent to

clients who take no beer or clients who take no liquor but the circular for specific sales may be sent to only the clients who have purchased beer actually previously.

- 5 So, in the client card mail system according to the present invention, the retrieval can be made with respect to the goods for which propaganda advertisement is carried out in company for the goods, departments, the goods, and classes of the goods names.

- 10 Initially, as shown in FIG. 5, in the main computer 1, purchase time for the goods advertised is set (k1). Preferably the aforesaid time is suitably set according to the goods advertised and the sales time, for example, such as from January to February, a spring season (from Marcy to May), since opening a store, or for one year last  
15 year. By setting the time as described, it is possible to omit clients who have not visited the store and have not purchased anything recently.

- 20 Next, whether or not retrieval is made by the company, or by the department, or by the goods is selected in class (k2). In the present selection, clients who desire the specific goods or clients who desire the goods of specific companies are selected, an clients who have purchased the goods advertised are extracted.

- 25 Next, the retrieval is carried out in the selected class (k3, k4, k5), which is displayed on the screen, for example. FIG. 6 illustrates the state in which when the goods are selected in class and the retrieval is made, the result of retrieval is read (k6), which is displayed on the screen of the main computer 1.

- 30 FIG. 6 is a view illustrating the result of retrieval of the goods to which the retrieving conditions are set in the client card mail system according to the present invention. This displays the result of retrieval relative to "Sales goods referred to the goods name  
35 xxx-ooo" with "time setting is a summer season (from June to August)", and "class selection is the goods". It is effective that when clients are selected on the screen,

sales information of the clients can be readily observed.,

As shown in FIG. 5, the retrieval result which was read and displayed on the screen is output (k7). The address and the postal code are printed on an envelope  
 5 using a printer 3 shown in FIG. 1 on the basis of the retrieval result output (k8).

An apparatus may be employed in which an envelope is printed by the printer 3 and at the same time the circulars are sealed into an envelope. Alternatively, an  
 10 envelope is not printed but an address and a dwelling place are printed on an addressed seal, circulars are sealed into an envelope, a seal is pasted, and an addressed advertisement is prepared.

Further, circulars with a plurality of the goods  
 15 combined, for example, circulars on which articles for special sale of different kinds such as beer, sliced raw fish, a kind of Chinese cabbage, and gum are prepared. Simultaneously, when clients' names and addresses applied to the goods advertized are printed on envelopes and the  
 20 circulars are sealed thereinto on the basis of the retrieval result of clients for advertizement of the plurality of the goods, more effective propaganda activity can be performed.

FIGS. 7 to 15 show the screen displays when a program  
 25 for the client card mail system according to the present invention is prepared and carried out on the main computer 1 actually. The present embodiment is not carried out by taking-in sales data from the terminal devices 1a, 1b, 1c and 1d shown in FIG. 1, so-called POS terminals on the  
 30 on-line but carried out by the main computer 1 in which the sales data gathered in the main computer 1 are once shifted to a magnetic memory medium, a so-called floppy disk (hereinafter called FD) or the like to actuate the present system. Of course, the program executed in the  
 35 present client card mail system may be incorporated in the main computer 1 shown in FIG. 1.

FIG. 7 is a display on the screen of the main computer

1 when the client card mail system according to the present invention is carried out, showing a client card mail system menu screen. The client card mail system according to the present invention is provided with three modes of  
5 embodiments, i.e., "Sales data are taken in from a recording medium", "Client information is retrieved and drawn out, clients' retrieval information are shown in a table, and an addressed advertisement is prepared", and "Master data is input".

10 As shown in FIG. 7, "Client card mail system menu", which is a client card mail system menu screen 4, is provided with a sales data take-in button 4a, a client information output button 4b, a master maintenance button 4c, and a termination button 4d.

15 Here, when the sales data take-in 4a is selected, sales information or the like can be taken into the present client card mail system from FD or the like to apply a date. Alternatively, not reading from FD, but a program stored in the main computer 1 is incorporated into a main  
20 computer 1' which controls the terminal devices 1a to 1d, and terminal information (POS terminal information) is instantaneously taken in on the on-line. The sales data take-in 4a will be described with reference to FIG. 8.

25 When the client information output 4b is selected, client information can be extracted and drawn out on the basis of the retrieval conditions set from data stored in the main computer 1, and the name and address for addressed advertisement can be printed on an addressed seal on the basis of the selected client information. The  
30 client information output 4b will be described with reference to FIGS. 9 to 14.

When the master maintenance 4c is selected, it is possible to perform inputting, changing and deleting of data which rarely change through a certain period, a  
35 so-called master record. In the present client card mail system, regional information, goods information and client information correspond to the master record. Data

of the present master record are stored in a file in which all the information necessary for data processing are collected, a so-called basic file (called a master file also). The master maintenance 4c will be described with  
5 reference to FIGS. 15 to 18.

When the termination 4d is selected, the client card mail system menu screen 4 is closed to terminate the program for the client card mail system.

In the following, three modes of embodiments, i.e.,  
10 the sales data take-in 4a, the client information output 4b, and the master maintenance 4c will be described in order with reference to the display screen.

FIG. 8 is a display on the screen of the main computer 1 when the client card mail system according to the present  
15 invention is carried out, showing a sales data take-in screen. In the present embodiment, there is employed a program in which sales data are collected every day and taken into the main computer 1. Therefore, when sales data are taken into the main computer 1 by FD, data are stored  
20 after the take-in date has been applied to data.

This is because records such as when sales data were taken in, and when was the latest input (that is, the latest update date of sales data) are left.

When sales data are taken into the main computer 1  
25 from FD, they may be taken in without applying dates relative to all the data. When the sales data take-in button 4a, in which dates and time on which clients purchase the goods are shown in FIG. 7, is depressed, the sales data collection screen 5 appears.

The sales data collection screen 5 is provided, as  
30 shown in FIG. 8, with a date write-in column 5a, a OK button 5b, and a termination button 5c. A FD is inserted into a read/write device, a so-called floppy disk drive provided in the main computer 1, a date of sales data stored  
35 in the FD is written into the date write-in column 5a, and when the OK button 5b is depressed, data is taken into the main computer 1. The termination button 5c is

depressed to close the sales data collection screen 5, then returning to the client card mail system menu which is the client card mail system menu screen 4.

FIG. 9 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client information output menu screen. In the present embodiment, the conditions comprising a master record of regional information, goods information and client information and sales data can be set to extract and draw out the client information in which the specific goods are purchased.

A name and an address for mailing an addressed advertisement to the client can be printed on the basis of the client information extracted. When the client information output button 4b shown in FIG. 7 is depressed, the client information output menu screen 6 shown in FIG. 9 appears.

The present client information output screen 6 is provided with a client information retrieval button 6a, an uncorking client retrieval button 6b, and a termination button 6c.

When the client information retrieval 6a is selected, the conditions for retrieving the client information can be set, and the client information can be collated with the conditions and extracted. The client information retrieval 6a will be described with reference to FIG. 10.

Here, when the uncorking client retrieval 6b is selected, it is possible to extract and output clients who has no actual purchase result of the goods advertised within a set period of time, and output mailing of an addressed advertisement on the basis of the retrieval result. The uncorking client retrieval 6b will be described with reference to FIG. 13.

When the termination button 6c is depressed, the client information output screen 6 is closed, then returning to the client card mail system menu screen 4. Two embodiment modes, i.e., the client information

retrieval 6a and the uncorking client retrieval 6b will be described in order with reference to the display screen.

FIG. 10 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client retrieval screen. When the client information retrieval button 6a shown in FIG. 9 is depressed, the client retrieval screen 7 shown in FIG. 10 appears.

The present client retrieval screen 7 is provided with a date range designation column 7a, a region range designation column 7b, a goods designation 7c, a sales rate setting column 7h, an output designation column 7i, an output button 7j, and a termination button 7k. In the present client retrieval screen 7, the conditions of a time range, a regional range, and the goods are imposed to retrieve and select clients to which circulars of the goods are distributed.

In the date range designation column 7a, the time for retrieving the client who purchased the goods designated in a certain time is set. The region range designation column 7b is the column which for example, in a branch store for special sale, sets the retrieval conditions for specifying the goods purchaser class who lives in a certain regional range about the branch store.

The goods designation 7c sets the goods put on circulars out of a plurality of the goods. That is, this is the column (item) for setting the designated goods in order to retrieve the goods purchaser who purchases the goods in a certain time and lives in the designated region for distributing circulars for advertisement of the designated goods.

The goods designation 7c is provided with a goods code selection column 7d, an addition 7e, a cancellation 7f, and a goods code setting column 7g. The goods is selected from the goods code selection column 7d, and the addition button 7e is depressed to take it into the goods code setting column 7g. When the goods taken in is mistaken,

the cancellation button 7f is depressed to make the goods code setting column 7g empty.

The sales rate setting column 7 is provided to set a plurality of actual purchases because when all the members who have experience to purchase the goods are extracted, clients who accidentally stop over at the store to buy the goods are also extracted.

It is understood from the Repert principle that a few number of clients indicates the major part of sales of the goods. Therefore, for example, where the sales rate is set to 80%, out of clients having the actual purchases of the goods designated in the goods designation 7c, high-ranking clients who contribute to sales of 80% of the entirety from the total sales of the goods are extracted.

The output designation column 7i designates a method for outputting the result of retrieval carried on the client retrieval screen 7, which selects and designates either client sales actual list or DM list.

When the output button 7j is depressed, the retrieval results can be tabled, or the retrieval results can be printed on an addressed seal. When the termination button 7k is depressed, the client retrieval screen 7 is closed, then returning to the client information output menu screen 6.

FIG. 11 is a table when the client card mail system according to the present invention is carried out to output the result of retrieval; and FIG. 12 is a client actual sales list showing an example wherein the client card mail system according to the present invention is carried out to output the result of retrieval to an addressed seal.

FIG. 11 shows an output example when the output designation 7i is selected on the client actual sales list in the client retrieval screen 7 shown in FIG. 10. Individual information such as a client code, a name, a postal number, an address, a telephone number of the client, the purchase price within a designated period of the



designated good and the final date of visit, out of information of clients who have experience to buy the goods obtained as a result of retrieval, are output to the client actual sales list in the form of a table in order, and  
 5 the total of the goods purchase prices obtained by the retrieval is also displayed.

FIG. 12 shows an output example when the output designation 7i is selected on the DM list in the client retrieval screen 7 shown in FIG. 10. Individual  
 10 information of the postal number, address and name for mailing an addressed advertisement with circulars for the designated goods enclosed to the designated goods purchasers obtained as a result of retrieval are printed on addressed seals 8a, 8a, 8a, 8a, 8a, ... provided on  
 15 a mount 8. The addressed seal 8a printed is stripped from the mount 8, and pasted at a given position of the envelope in which the circulars are sealed.

FIG. 13 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing an unworking client retrieval screen. When the uncorking client retrieval 6b is selected in the client information output menu screen 6 shown in FIG. 9, the uncorking client retrieval screen 9 shown in FIG. 11 appears. The uncorking client retrieval  
 20 screen 9 is provided with a date range designation column 9a, a region range setting column 9b, an output designation column 9c, an output button 9d, and a termination button 9e.

The uncorking client retrieval screen 9 is to extract  
 30 clients who have never purchased even one goods out of clients within a designated term and a designated regional range. The screen extracts clients who have utilized the store before and have actual purchases but have not utilized the store recently, extracts clients who have  
 35 not purchased the goods for a bargain sale and a special sale, or extracts clients who have not purchased the goods since a separate store is newly opened in an adjacent

region.

The date range designation column 9a is to set a term for retrieving clients who have not purchased the goods in a certain term. The region range designation column 5 9b is the column (item), for example, in a certain branch store for a special sale, for setting the retrieval conditions for specifying the goods unpurchasers who live in the regional range about the branch store.

The output designation column 9c is to designate the 10 method for outputting the present retrieval result carried out on the client retrieval screen 9, and select and designate either uncorking client list or DM list.

When the output button 9d is depressed, the retrieval results obtained by extracting clients who have no actual 15 goods purchase can be tabled or the retrieval results can be printed on the addressed seal. When the termination button 9e is depressed, the uncorking client retrieval screen 9 is closed, then returning to the client information output menu screen 6.

FIG. 14 is an output table when the client card mail 20 system according to the present invention is carried out to output the result of retrieval, and is an output example when the output designation 9c is selected in the uncorking client list in the uncorking client retrieval screen 9 shown in FIG. 13. Out of client information who have no 25 experience to buy the goods in a certain term obtained as a result of retrieval, individual information such as a client code, a name, a postal number, an address, a telephone number and a final visit date of the clients are output in a table in order to the uncorking client 30 list.

FIG. 15 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a master maintenance 35 selection screen. In the present embodiment, data which rarely change through a certain term, that is, a so-called master record of regional information, goods information

and client information can be input, changed and deleted.

A master maintenance selection screen 10 is provided with a district master maintenance button 10a, a goods master maintenance button 10b, a client master maintenance button 10c, and a termination button 10d.

When the region master maintenance 10a is selected, a district code number that has been secured in the region or district previously in the main computer can be set and input. The district master maintenance 10a will be described with reference to FIG. 16.

When the good master maintenance 10b is selected, the goods name, vendor, unit price and the like of the goods can be input into the main computer 1. The goods master maintenance 10b will be described with reference to FIG. 17.

When the client master maintenance 10c is selected, the name, address, telephone number and client code of clients can be set to the main computer 1. The client master maintenance 10 will be described with reference to FIG. 18.

When the termination button 10d is depressed, the master maintenance selection screen 1 is closed, returning to the client card mail system menu screen 4.

FIG. 16 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a district master maintenance selection screen. A district master maintenance screen 11 is provided with a district code column 11a, a district name column 11b, an updating button 11c, a deletion button 11d, a cancellation button 11e, and a termination button 11f.

Numbers employed in the district code column 11a are entered and district names corresponding to the numbers employed in the district name column 11b are entered and registered. For example, umbers are secured every region where the branch store is present, and numbers are secured in unit of cities, towns and villages.

When the updating button 11c is depressed, the numbers described in the district codes and the names described in the district names are updated. When the deletion button 11d is depressed, the numbers described in the district code column 11a and the district names described in the district name column 11b are deleted. When the cancellation button 11e is depressed, the numbers described in the district code column 11a and the district names described in the district name column 11b are canceled to make the column empty. When the termination button 11f is depressed, the master maintenance selection screen 10 appears.

FIG. 17 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a goods master maintenance screen. In the present goods master maintenance screen 12, data peculiar to the goods are input into the main computer 1.

The goods master maintenance screen 12 is provided with a goods code column 12a, a POS good name column 12b, a goods formal name column 12c, a goods informal name column 12d, a vendor code column 12e, a consumption tax section 12f, a prim cost column 12g, a desired retail price column 12h, a sales unit price 12i, an updating button 12j, a deletion button 12k, a cancellation button 12l, and a termination button 12m.

The good numbers are entered in the goods code column 12a. With respect to the goods numbers, bar code numbers that are used in the world so as to be readily read by a register or a terminal device may be input. The goods names used in the POS terminal are input in katakana into the POS goods column 12b. This can be also used when being described in a receipt issued to clients who purchased the goods.

The goods names are correctly described in the goods formal name column 12c. Shortened goods names, goods names with a capital letter removed, and common names are

described in the goods informal name column 12d. This can be also used when being described in a receipt issued to clients who purchased the goods.

- 5 In the vendor code column 12e, numbers are secured previously for the vendor so that the vendor can be discriminated by the number secured. The consumption tax section 12f sums up, with respect to the goods input into the main computer 1 in the goods master maintenance screen 12, the prices of the goods in the register or sets the  
10 sections of consumption tax necessary when described in the receipt.

- For example, when set as an outer tax, there is displayed ¥105(Yen) obtained by adding 5% to the goods of ¥100. In case of an inner tax, the goods of ¥100 is  
15 displayed as ¥100. When summed up by the main computer 1, the price of the consumption tax can be divided and summed up while corresponding to the inner tax and outer tax of the goods.

- Further, the prime price 12g related to the vendor  
20 registered in the main computer 1 on the goods master maintenance screen 12, the desired retail price 12h, and the sales unit prices 12i as the sales price can be registered.

- When the updating button 12j is depressed, the goods  
25 code stored in the master code, the vendor code, the consumption tax section, the prime price, the desired retail price, and the sales unit price are updated to the number described in the goods card column 12a, the goods names described in the goods name columns 12b, 12c and  
30 12d, the vendor number of the vendor code column 12e, the consumption tax section, the prime unit price of the unit price information column, the desired retail price and the sales unit price.

- When the deletion button 12k is depressed, the number  
35 described in the goods code registered in the master code, the goods name described in the goods name, the vendor, the consumption tax section, the prime price, the desired

retail price, and the sales price are deleted.

When the cancellation button 12l is depressed, the number described in the goods code column 12a, the goods names described in the goods name columns 12b, 12c, and 12d, the vendor code described in the vendor cod column 12e, the consumption tax section of the consumption tax section 12, the prime price of the prime price column 12g, the desired retail price of the desired retail price column 12h, and the sales unit price of the sales unit price column 12i are canceled to make the column empty.

When the termination button 12m is depressed, the master maintenance selection screen 10 appears.

FIG. 18 is a display on the screen of the main computer 1 when the client card mail system according to the present invention is carried out, showing a client master maintenance screen. Client individual information is registered in the main computer 1, and the client master maintenance screen 13 inputs data peculiar to the client into the main computer 1.

The client master maintenance screen 13 is provided with a client code column 13a, a client name column 13b, a client appellation column 13c, a sex distinction setting column 13d, a date of one's birth column 13e, a postal number column 13f, a telephone number column 13g, kanji input address columns 13h and 13i, katakana input address columns 13j and 13k, a district code column 13l, an updating button 11m, a deletion button 11n, a cancellation button 11o, and a termination button 11p.

A client number secured enters in the client code column 13a. The client number can be also used for a service point or the like, for example, when the goods are purchased in the register or the terminal device. A member card is issued. Client information is read by a scanner or the like before being handled by the register, a point is added to the client simultaneously with the reading of the goods, and when reaching the amount as defined, some service can be received.

Clients' names are input in katakana or alphabet into the client name column 13b, and clients' name are input in kanji into the client appellation column 13c. Katakana were used because the names are readily arranged in order of a, i, u, e and o when data are put in order. Input into the sex distinction setting column 13d, the date of one's birth column 13e, the postal number column 13f, and the telephone number column 13g are a sex distinction of a client to be registered, the date of birth of a client to be registered, a postal number of an address where a client to be registered lives, and a telephone number own by a client to be registered, respectively.

Addresses of clients are correctly described in the address columns 13h, 13i, 13j, and 13k. Katakana (or alphabet) input address columns 13j and 13k are provided because they are readily arranged in order of a, i, u, e and o (or alphabet) when data are put in order.

The district code column 13l selects and registers districts secured in number by the district master maintenance screen 11 shown in FIG. 16. The district code corresponding to the client's address is selected from the district code column 13l.

When the updating button 13m is depressed, the client information registered in the master code are updated to the number and the client name 13b described in the client code column 13a; and the client name, the sex distinction, the date of birth, the postal number, the telephone number, the address, and the district code described in the client appellation column 13c.

When the deletion button 13n is depressed, the name, address, sex distinction, date of birth, postal number and telephone number of the clients described in the client code, and the district code out of client information being registered in the master code are deleted.

When the cancellation button 13o is depressed, the number described in the client code column 13a, the clients' names described in the client name columns 13b

and 13c, the sex distinction of the sex distinction column 13d, the date of birth in the date of birth column 13e, the postal number in the postal number column 13d, the telephone number in the telephone number column 13e, the  
 5 addresses described in the address columns 13h, 13i, 13j and 13k, and the district code in the district code 13l are canceled to make the columns empty.

When the termination button 13p is depressed, the master maintenance selection screen 10 appears.

10 Further, the client card mail system according to the present invention can be also utilized by developing it on the shopping mall on the Internet.

The present invention is constituted as described above. Therefore, first, since an advertisement for cheap  
 15 goods can be mailed immediately to the clients who have once purchased the goods, clients can be induced positively.

Second, since 20% of the entire client occupy 80% of total sales, clients can be retrieved to distribute an  
 20 advertisement to only the clients who have actually purchased the goods, rather than distribution of circulars to the whole clients, to thereby lower the advertisement fee positively.

Third, as the effect extended from the above-described effect, there are clients scalled a bargain  
 25 hunter who wonders from place to place aiming at only a bargain sale, but this is not a distribution method for an advertisement as in a newspaper advertisement which can be seen by anybody, thus preventing the purchase of  
 30 the goods by clients like the bargain sale.

Fourth, since an advertisement is mailed directly, clients can be established.



## WHAT IS CLAIMED IS:

1. A client card mail system, comprising: means for storing client information including individual information of clients' code number, name, sex distinction, age, address and telephone number; means for storing information of the goods for sales company for the sales goods, departments, classes of the goods name, goods codes, prime unit prices, and sales unit prices; means for storing information of the goods purchased by the clients; and means for retrieving clients' information of the clients who actually purchased the goods setting the conditions of periods and goods classes from the information of the goods purchased; and means for outputting and printing the results retrieved, thereby to enable useful propaganda activity of the sales goods.
2. The client card mail system according to claim 1, wherein said means for storing client information, said means for storing goods information and said means for storing goods sales information comprise a recording medium such as a magnetic card, a plurality of terminal devices, a main computer, and a data storing device.
3. The client card mail system according to claim 1, wherein said means for retrieving client information comprises a plurality of terminal devices and a main computer.
4. The client card mail system according to claim 1, wherein said means for outputting and printing the retrieved result comprises a printer and a card issuing machine.
5. A client card mail system comprising the steps of:  
    setting a purchase time of the goods advertised to a main computer, selecting a class whether retrieval is made

by a company, a department or the good and carrying out the retrieval in the selected class;

reading and displaying a retrieval result on the screen;

outputting the retrieval result read and displayed on the screen; and

performing printing.

**ABSTRACT**

A client card mail system, comprising: means for  
5 storing client information including individual  
information of clients' code number, name, sex  
distinction, age, address and telephone number; means for  
storing information of the goods for sales company for  
the sales goods, departments, classes of the goods name,  
10 goods codes, prime unit prices, and sales unit prices;  
means for storing information of the goods purchased by  
the clients; and means for retrieving clients'  
information of the clients who actually purchased the  
goods setting the conditions of periods and goods classes  
15 from the information of the goods purchased; and means  
for outputting and printing the results retrieved.  
According to the present invention, the clients' taste  
and living custom can be grasped to enable propaganda  
activity without waste, and there is provided a client  
20 card mail system making use of a method for storage and  
retrieval of fractionalized data.

25

30

35

FIG. 1

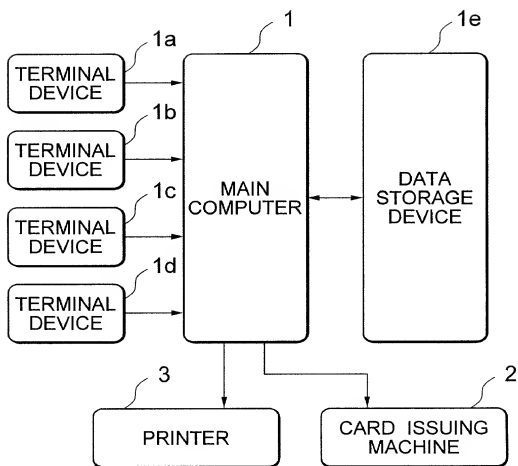


FIG. 2

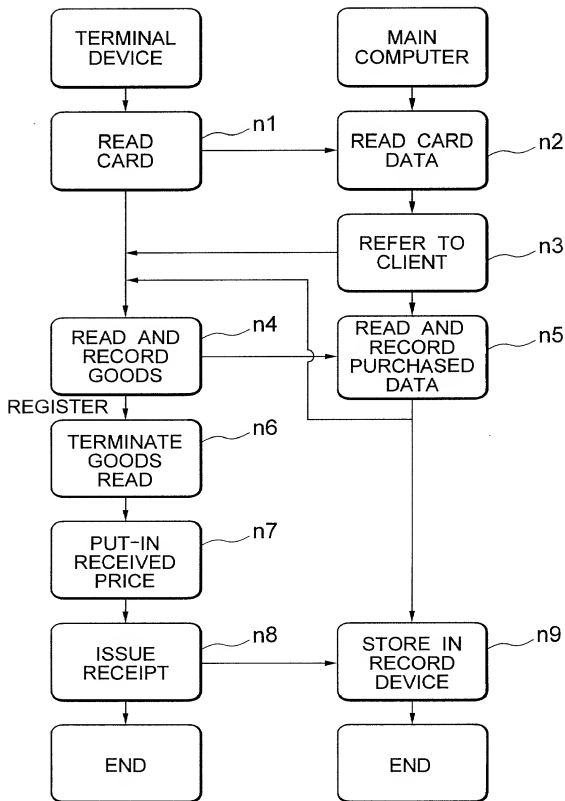


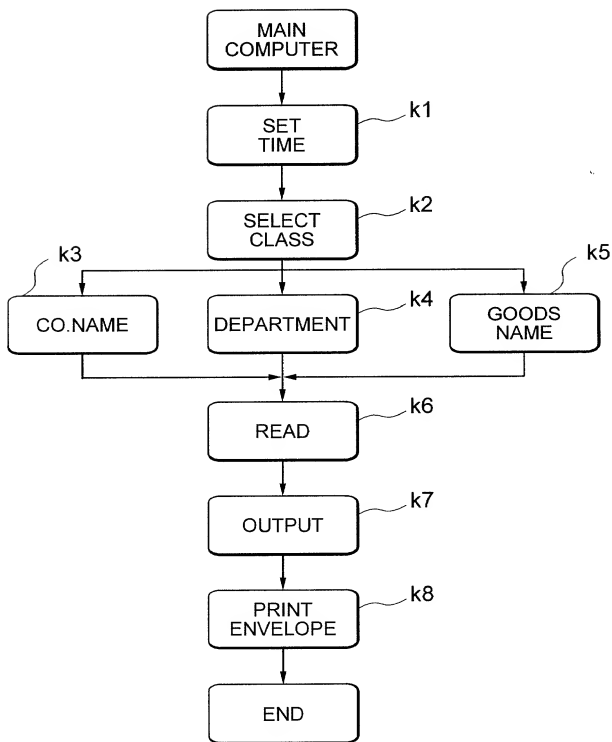
FIG. 3

CLIENT NO.	NAME	ADDRESS	TEL	AGE	SEX
543210	ICHIRO SUZUKI	D1-1-1,C-CHO,B-SHI,A-KEN	03-0694-1760	23	1
543211	AIKO SATO	F2-1-1,E-CHO,B-SHI,A-KEN	03-1109-0110	47	2
543212	YOSHIKO TAKAHASI	G1233,E-CHO,B-SHI,A-KEN	04329-4-8199	38	2
543213	MIDORI TANAKA	K3-2-1,H-SHI,A-KEN	03-0694-1760	29	2
543214	SETSUOKO YAMAMOTO	M1-56-1,L-SHI,A-KEN	0199-35-6213	68	2
543215	HANAKO YAMADA	R2-5,Q-CHO,P-SHI,N-KEN	06-4410-5500	21	2
543216	MAKOTO ITO	5-16,S-CHO,R-SHI,A-KEN	0833-24-6328	25	1
543217	JUN YOSHIDA	U2-2-2,T-CHO,B-SHI,A-KEN	0524-83-4689	18	2

FIG. 4

543215 HANAKO YAMADA		GOODS				
PURCHASE DATE	STORE	GOODS PURCHASED	CO.	DEPART.	GOODS	SIZE PRICE
1998/12/20 17:23	BRANCH A	X X X-000	S CO	LIQUOR BEER		LARGE 500
		X X X-000	K CO	SEASONING SALT		1kg 300
		X X X-000	G CO	CONFECTIONERY CANDY		50g 100
		X X X-000	G CO	CONFECTIONERY CANDY		50g 100
1998/12/23 10:40	BRANCH B	X X X-000	F CO	VEGETABLES MUSHROOM		6P 150
1998/12/24 16:35	BRANCH A	X X X-000	S CO	LIQUOR BEER		LARGE 500
1998/12/25 18:49	BRANCH A	X X X-000	S CO	LIQUOR WINE		1L 3000
		X X X-000	P CO	DAIRY PROD CHEESE		300 600
1998/12/30 12:55	BRANCH A	X X X-000	H CO	FOOD N.Y.DISH		1P 15000

FIG. 5





Year	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

F/G. 6

X X X-000			CO.S / LIQUOR / BEER / JUNE-AUGUST		
CLIENT NO.	CLIENT NAME	NO PURCHASED	CLIENT NO.	CLIENT NAME	NUMBER PURCHASED
543215	HANAKO YAMADA	20	556738	FUMINORI FUJIMOTO	28
547621	YOSHIE TAKEDA	31	556739	NORIHIKO HAYASI	36
547769	TOMEKICHI HASHIMOTO	203	556744	TORU FUNAKI	308
547822	AKEMI KURUMADA	13	556749	MITUE MIYAKE	88
548235	TOSHIE KIMURA	55	556752	SHOJI OSHIMA	02
548350	YORIKO FUJIHARA	79	556881	KYOKO NAKAI	71
548381	SETUKO UEDA	105	557899	ATSUMI YOSHIMOTO	23
548399	NORIKO KURIBAYASHI	01	558005	KEIKO ISHIGE	33
548449	MITSUTERU ASHIMURA	61	558369	TERUE KOBAYASHI	48
549237	ERIKO YOKOTA	19	559189	KIKUE NAGASE	83
549336	MIZUE ENDO	42	560023	HIROSHI OGAWA	01

FIG. 7

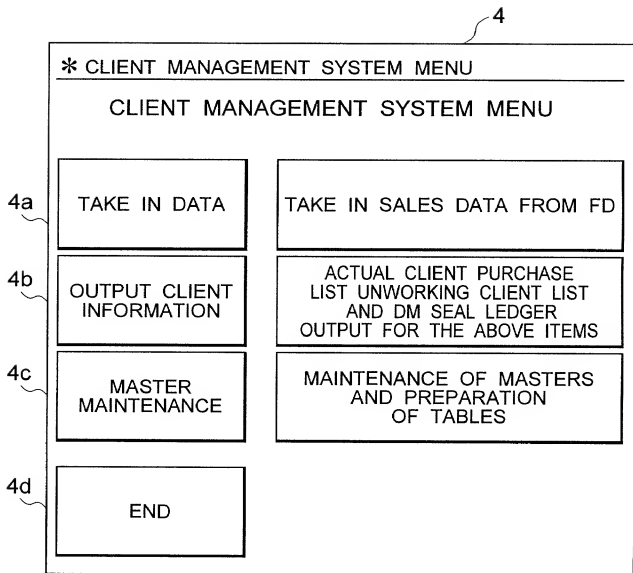


FIG. 8

5

\* COLLECTION OF SALES DATA

COLLECTION DATE	1999/02/03
-----------------	------------

5a 5b 5c

OK	END
----	-----

FIG. 9

6

\* OUTPUT CLIENT INFORMATION

6a RETRIEVAL OF CLIENT INFORMATION

6b RETRIEVAL OF UNWORKING CLIENT

6c END

FIG. 10

**\* CLIENT RETRIEVAL**

<b>DESIGNATION OF DATE RANGE</b>	1999/02/03	1999/02/03
<b>DESIGNATION OF DISTRICT RANGE</b>	01	03

**DESIGNATION OF THE GOODS**

<b>GOODS CODE</b>	<div> <div>▲</div> <div>321098765432 ORANGE JUICE</div> <div>1122334455791 SPECIAL GLASS SAKE</div> </div>	<div> <div>ADDITION =&gt;</div> <div>CANCEL</div> </div>	<div>123456789123 BEER</div>
-------------------	--	--	------------------------------

**SET SALES** 80 %

**DESIGNATE OUTPUT**

7h 7i 7k

7a 7b 7c 7d 7e 7f 7g

FIG. 11

ACTUAL CLIENT PURCHASE LIST      PREPARED DATE 1999/02/04

DATE		1999/02/01 ~ 1999/02/28		DISTRICT		01 ~ 02				PURCHASE PRICE		DATE OF FINAL VISIT			
NO		CLINET CODE		CLINET NAME		POSTAL NO.		ADDRESS 1		ADDRESS 2		TEL.NO			
1		1234567		TARO OHSHIMA		321-0962		NO.11 YANO SHIN.BLDG 5F 673-1, IMAIZUMICHO,UTSUNOMIYA-SHI, TOCHIGI-KEN		028-635-7136		¥2,500		1999/02/03	
2		7654321		HANAKO OHSHIMA		321-0962		NO.11 YANO SHIN.BLDG 5F 673-1, IMAIZUMICHO,UTSUNOMIYA-SHI, TOCHIGI-KEN		028-635-7136		¥4,500		1999/02/04	
										TOTAL SALES AMOUNT		¥7,000			

# FIG. 12

8

8a

〒321-0962  
NO.11 YANO SHIN.BLDG 5F 673-1,  
IMAIZUMICHO,UTSUNOMIYA-SHI,  
TOCHIGI-KEN,  
TO:K.K ARROW SYSTEM  
DEVELOPMENT  
00893 AABC123 1234567

8a

8a

8a

8a

FIG. 13

9

**\* RETRIEVAL OF UNWORKING CLIENT**

DESIGNATION (DATE RANGE)	1998/02/01	1998/02/28
DESIGNATION (DISTRICT RANGE)	01	03
DESIGNATION (OUTPUT)	<div>DM LIST</div>	

9a

9b

9c

9d

9e

OUTPUT

END

The figure shows a graphical user interface for a client retrieval system. The window is titled '\* RETRIEVAL OF UNWORKING CLIENT'. It features three main input sections. The first section, 'DESIGNATION (DATE RANGE)', has two date input boxes containing '1998/02/01' and '1998/02/28'. The second section, 'DESIGNATION (DISTRICT RANGE)', has two numeric input boxes containing '01' and '03'. The third section, 'DESIGNATION (OUTPUT)', has a dropdown menu currently displaying 'DM LIST'. Below these input sections are two buttons: 'OUTPUT' and 'END'. Various reference numerals (9, 9a, 9b, 9c, 9d, 9e) point to different components of the interface.

# FIG. 14

UNWORKING CLIENT LIST							PREPARED DATE 1999/02/04
DATE OF FINAL SALES		1999/02/04	DISTRICT	01 ~ 02			
NO	CLINET CODE	CLIENT NAME	POSTAL NO.	ADDRESS 1	ADDRESS 2	TEL.NO	FINAL VISIT DATE
1	1122345	TARO YAMADA	321-0962	NO.11 YANO SHIN-BLDG 5F 673-1,IMAIZUMICHO,UTSUNOMIYA-SHI, TOCHIGI-KEN			028-635-7806 1999/01/15
2	0000001	SETSUAKO OKAMOTO	321-0962	NO.11 YANO SHIN-BLDG 5F 673-1,IMAIZUMICHO,UTSUNOMIYA-SHI, TOCHIGI-KEN			028-635-7124 1999/01/23



FIG. 15

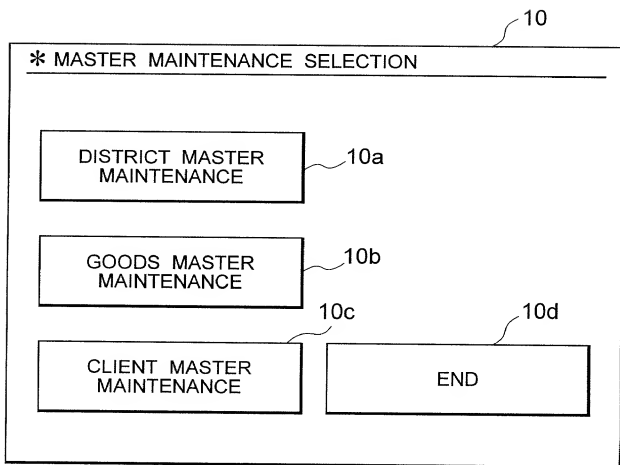


FIG. 16

11

\* DISTRICT MASTER MAINTENANCE

DISTRICT CODE	01
DISTRICT NAME	UTSUNOMIYA

11a 11b

11c 11d 11e 11f

UPDATE(W)	DELETE(D)	CANCEL(C)	END(X)
-----------	-----------	-----------	--------

# FIG. 17

12

**\* GOODS MASTER MAINTENANCE**

GOODS CODE	1234567890123	12a
POS GOODS NAME (KANA)	BEER	12b
GOODS FORMAL NAME (KANJI)	BEER	12c
GOODS INFORMAL NAME (KANJI)	BEER	12d
VENDOR CODE	1234	12e
CONSUMPTION TAX SECTION	<div style="border: 1px solid black; width: 100px; height: 15px; background-color: black; position: relative;"> <div style="position: absolute; right: 5px; top: 5px; width: 10px; height: 10px; border: 1px solid black; background-color: white;"></div> </div>	12f

[UNIT PRICE INFORMATION]

PRIME COST	DESIRED RETAIL PRICE	SALES UNIT PRICE
200	350	300

UPDATE (W)

DELETE (D)

CANCEL (C)

END (X)

12j
12k
12l
12m

# FIG. 18

13

**\* CLIENT MASTER MAINTENANCE**

<b>CLIENT CODE</b>	1234567	13a
<b>CLIENT NAME (KANA)</b>	TARO OHSHIMA 13b	
<b>CLIENT NAME (KANJI)</b>	TARO OHSHIMA	13c 13e
<b>SEX</b>	MALE 13f	DATE OF BIRTH 1967/07/13 13d
<b>POSTAL NO.</b>	321-0962	TEL.NO 028-635-7136
<b>ADDRESS (UPPER) (KANJI)</b>	673-1, IMAIZUMI-CHO, UTSUNOMIYA-SHI, TOCHIGI-KEN 13g	
<b>ADDRESS (LOWER) (KANJI)</b>	NO.11 YANO SHIN-BLDG 5F	13h 13i
<b>ADDRESS (UPPER) (KANA)</b>	673-1, IMAIZUMI-CHO, UTSUNOMIYA-SHI, TOCHIGI-KEN	
<b>ADDRESS (LOWER) (KANA)</b>	NO.11 YANO SHIN-BLDG 5F	13j 13k
<b>DISTRICT CODE</b>		131

UPDATE (W) 13m

DELETE (D) 13n

CANCEL (C) 13o

END (X) 13p

# Declaration and Power of Attorney United States Patent Application

UNITED STATES  
Patents and Design Patents  
Sole & Joint Inventors  
Convention & Non-convention  
PCT & Non-PCT  
This form cannot be amended, altered  
or changed after it is signed.  
(For use only for inventors who  
understand the English language.)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

## CLIENT CARD MAIL SYSTEM

(check one) ☒ is attached hereto.

☐ was filed as U.S. Application No. \_\_\_\_\_ on \_\_\_\_\_ and (if applicable) was amended on \_\_\_\_\_.

☐ was filed as PCT International Application No. \_\_\_\_\_ on \_\_\_\_\_ and (if applicable) was amended under PCT Article 19 on \_\_\_\_\_.

(I authorize any attorney appointed below to insert information in the preceding blanks.)

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign and PCT application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States of America listed in this Declaration.

I have also identified below any foreign application for patent or inventor's certificate or PCT international application having a filing date before that of the application(s) on which priority is claimed:

Foreign/PCT Application No.	Country	Filing Date	Priority Claimed? (yes/no)
7059/1999	Japan	February 24, 1999	Yes

I hereby claim the benefit under Title 35, United States Code, §120 or §365(c) of any United States application and PCT international application designating the United States of America listed in this Declaration and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application or PCT international application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Application No.	Filing Date	Status (patented/pending/abandoned?)

I hereby claim priority benefits under Title 35 United States Code §119(e) of any U.S. provisional application(s) listed below:

U.S. Provisional Application No.	Filing Date

I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Michael K. Carrier, (42391), Joseph A. DeGrandi (17446), Thomas L. Evans (35805), Herbert M. Hanagan (25682), J. Rogers Lunsford, III (29405), Michael A. Makuch (32263), William F. Rauchholz (34701), Dennis C. Rodgers (32936), Charles L. Warner, II (32320), Robert G. Weilacher (20531), Richard G. Young (20628).

Send all correspondence to: Smith, Gambrell & Russell, LLP, Beveridge, DeGrandi, Weilacher & Young Intellectual Property Group, 1850 M Street, N.W. (Suite 800), Washington, D.C. 20036. All facsimiles may be sent to (202) 659-1462. Direct all phone calls to (202) 659-2811.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Signature: Heizo Kitajima

Date: August 31, 1999

Full name of second joint inventor, if any:

Citizenship:

Residence (city, state, country):

Post office address:

Signature:

Date:

☐ Additional inventors and/or prior applications are listed in attached Supplemental Sheet(s).

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Supplemental Sheet to U.S. Declaration and Power of Attorney (SGR/BDWY-1 supp.)

Additional Inventor(s):

Full name of third joint inventor, if any:

Citizenship:

Residence (*city, state, country*):

Post office address:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Full name of fourth joint inventor, if any:

Citizenship:

Residence (*city, state, country*):

Post office address:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Full name of fifth joint inventor, if any:

Citizenship:

Residence (*city, state, country*):

Post office address:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Additional Foreign/PCT Applications:

Foreign/PCT Application No.	Country	Filing Date	Priority Claimed? (yes/no)

Additional U.S. Applications:

U.S. Application No.	Filing Date	Status ( <i>patented/pending/abandoned?</i> )

Additional Provisional U.S. Applications:

U.S. Provisional Application No.	Filing Date